

**Office Action**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.  
  
Authorization for this examiner's amendment was given in a telephone interview with James Costigan on 11/06/2008.
2. The application has been amended as follows:  
  
Replace claims 10-14 as shown below.  
  
Claim 10 (currently amended) A key unit used in a mobile device such as a portable telephone in which a large number of key tops are disposed on a key pad ~~of~~ having a substantially sheet shape made of a silicone rubber or a soft thermoplastic elastomer, characterized in that at least one of the key tops has a structure in which a top face ~~and/or~~ a side face except a bottom face of a main body made of a transparent hard resin is covered with a metallic film formed by plating, and a pattern of a character ~~[[,]]~~ or a symbol ~~or the like~~ is formed by irradiating the key top with a laser light, and then removing a surface portion only of the metallic film at an irradiated portion to constitute a plane aggregation of a large number of very small recessed points.  
  
Claim 11 (currently amended) The key unit according to claim 10, characterized in that as the laser light, there is used one of a laser light having a wavelength of 532

nm obtained by taking out a second harmonic[[s ]]of \_Nd:YAG laser, a laser light having a wavelength of 355 nm obtained by taking out a third harmonic[[s]] of the laser, a laser light of a YAG laser having a wavelength of 1064 nm and a convergence diameter of 30  $\mu$ m or less to the irradiated portion, and an excimer laser light having a wavelength of 180 nm and a convergence diameter at molecular level.

Claim 12 (currently amended) A marking method ~~to~~ for forming a predetermined pattern on a key top which comprises irradiating, with a laser light, a metallic film formed by plating on a key top surface in a key unit used in a mobile device such as a portable telephone in which a large number of key tops are disposed on a key pad ~~of~~ having a substantially sheet shape, ~~said keypad being~~ made of a silicone rubber or a soft thermoplastic elastomer, ~~to remove~~ removing a surface portion only of the metallic film at an irradiated portion and to ~~constituted by an~~ a-plane aggregation of a large number of very small recessed points, thereby forming a pattern of a character, a symbol or the like, characterized in that the laser light has a wavelength of 1100 nm or less.

Claim 13 (currently amended) A marking method ~~to~~ for forming a predetermined pattern on a key top according to claim 12, characterized in that as the laser light, there is used ~~one of~~ a laser light having a wavelength of 532 nm which is obtained by taking out a second harmonics of \_Nd:YAG laser, a laser light having a wavelength of 355 nm which is obtained by taking out a third harmonic[[s]] of the

laser, a laser light of a YAG laser having a wavelength of 1064 nm and a convergence diameter of 10 to 30  $\mu\text{m}$  or less to the irradiated portion, and an excimer laser light having a wavelength of 180 nm and a convergence diameter at molecular level.

Claim 14 (currently amended) A ~~manufacturing~~ method manufacturing of a key unit used in a mobile device such as a portable telephone in which a large number of key tops are disposed on a key pad having substantially sheet shape, characterized in that unmarked key tops including a key top having a metallic film are combined with a key unit; ~~the manufacture is temporarily stopping~~ manufacturing in a state at a point in the process wherein all other steps except marking ~~to~~ of the key tops ~~have~~ has been completed; ~~the stopping is kept~~ maintaining the temporary stopping in manufacturing until a content [[s]] of a character, or a symbol or the like necessary for the product are decided; and then marking of the character [[.]] or the a symbol [[s]] or the like is performed by the marking method according to any of claim 13 to complete the key unit marking said key tops by a process comprising irradiating, with a laser light, a metallic film formed by plating on a key top surface in a key unit used in a mobile device such as a portable telephone in which a large number of key tops are disposed on a key pad having a substantially sheet shape, said key tops being made of a silicone rubber or a soft thermoplastic elastomer, removing a surface portion only of the metallic film at an irradiated portion constituted by an aggregation of a large number of very small recessed points,

thereby forming a pattern of a character or a symbol, by laser light having a wavelength of 1100 nm or less by using a laser light having a wavelength of 532 nm which is obtained by taking out a second harmonic of Nd:YAG laser, a laser light having a wavelength of 355 nm which is obtained by taking out a third harmonic of the laser, a laser light of a YAG laser having a wavelength of 1064 nm and a convergence diameter of 10 to 30  $\mu\text{m}$  or less to the irradiated portion, and an excimer laser light having a wavelength of 180 nm and a convergence diameter at molecular level.

**(End of Examiner's Amendment)**

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan D. Nguyen whose telephone number is (571) 272-8163. The examiner can normally be reached on M-F 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TDN

11/6/08

/CURTIS KUNTZ/

Supervisory Patent Examiner, Art Unit 2614